

Amendments to the Specification:

On page 1, after the title, insert the following new paragraph:

CROSS-REFERENCE TO RELATED APPLICATION

This application is the U.S. national phase of PCT Appln. No. PCT/EP2004/007173 filed July 1, 2004, which claims priority to German application 103 31 288.9 filed July 10, 2003.

At page 1, line 2, please add the following heading and subheading as shown below:

BACKGROUND OF THE INVENTION

1. Field of the Invention

At page 1, line 6, please add the following subheading as shown below:

2. Description of the Related Art

At page 1, line 36, please add the following heading as shown below:

SUMMARY OF THE INVENTION

At page 1, line 37 please amend the following paragraphs as shown below:

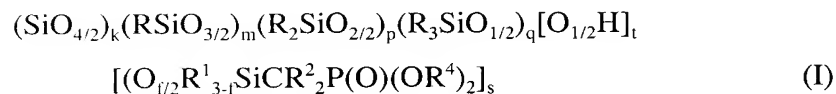
It is thus an object of the present invention to provide a process for preparing phosphonate-modified organosiloxanes, by which, starting from commercially available chemicals, the phosphonate-modified organosiloxanes can be prepared in a very simple manner, with short

reaction times and in high yields. These and other objects are achieved by reaction of a phosphonate functional alkoxysilane with water.

At page 2, before line 6, please add the following heading and amend the paragraph as shown below:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

The invention provides a process for preparing phosphonate-modified organosiloxanes of the general formula (I):



in which

- R** is a hydrogen atom or a monovalent, optionally -CN-, -NCO-, -NR⁵₂-, -COOH-, -COOR⁵-, -halogen-, -acryloyl-, -epoxy-, -SH-, -OH- or -CONR⁵₂-substituted Si-C-bonded C₁-C₂₀-hydrocarbyl radical or C₁-C₁₅-hydrocarboxy radical in which one or more nonadjacent methylene units in each case may be replaced by -O-, -CO-, -COO-, -OCO-, -OCOO-, -S- or -NR⁵- groups and in each of which one or more nonadjacent methine units may be replaced by -N=, -N=N- or -P= groups,
- R¹** is a hydrogen atom or a monovalent, optionally -CN-, -NCO-, -COOH-, -COOR⁵-, -halogen-, -acryloyl-, -SH-, -OH- or -CONR⁵₂-substituted Si-C-bonded C₁-C₂₀-hydrocarbyl radical or C₁-C₁₅-hydrocarboxy radical in which one or more nonadjacent methylene units in each case may be replaced by -O-, -CO-, -COO-, -OCO-, -OCOO-, -S- or -NR⁵- groups and in each of which one or more nonadjacent methine units may be replaced by -N=, -N=N- or -P= groups,
- R²** is hydrogen or an optionally -CN- or halogen-substituted C₁-C₂₀-hydrocarbyl radical,
- R⁴** is an optionally -CN- or halogen-substituted C₁-C₂₀-hydrocarbyl radical or hydrocarboxy radical, or substituted or unsubstituted polyalkylene oxides having from

1 to 4000 carbon atoms,
R⁵ is hydrogen or an optionally –CN- or halogen-substituted C₁-C₁₀-hydrocarbyl radical,
k is an integer from 0 to ~~100-000~~ 100,000,
m is an integer from 0 to ~~100-000~~ 100,000,
p is an integer from 0 to ~~100-000~~ 100,000,
q is an integer from 0 to ~~100-000~~ 100,000,
f is an integer of 1, 2 or 3,
s is an integer of at least 1 and
t is an integer of at least 0,

where

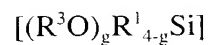
k + m + p + q is an integer of at least 1,

characterized in that

functional silanes of the formula (III):



are reacted with water alone or together with silanes of the general formula (IV):



where

R³ is hydrogen or an optionally –CN- or halogen-substituted C₁-C₂₀-hydrocarbyl radical
 and
g is an integer of 1, 2, 3 or 4 and

R, R¹, R², R⁴, k, m, p, q, f and **s** are each as defined above.

At page 7, line 26, please amend the following paragraph as shown below:

A 250 ml three-neck flask ~~flask~~ with dropping funnel and reflux condenser was initially charged under a nitrogen atmosphere with 99.7 g (0.6 mol) of triethyl phosphite ($\text{P}(\text{OEt})_3$, Aldrich, GC 98%). After heating to 140°C, 46.4 g of chloromethyldimethoxymethylsilane (0.3 mol) (Wacker-Chemie GmbH, Munich) were slowly added dropwise with vigorous stirring within 3 hours. Subsequently, the reaction mixture was heated to 170°C for another 30 min. After the excess triethyl phosphite had been removed under reduced pressure, 58.6 g of diethoxyphosphorous ester methyldimethoxymethylsilane (0.23 mol, GC 98%, yield: 76% of theory) were distilled off at a temperature of 133°C and a vacuum of 12 mbar.

At page 8, line 1, please amend the following paragraph as shown below:

Example 2 (noninventive):

A 250 ml three-neck flask ~~flask~~ with dropping funnel and reflux condenser was initially charged under a nitrogen atmosphere with 124.5 g (0.75 mol) of triethyl phosphite ($\text{P}(\text{OEt})_3$, Aldrich, GC 98%). After heating to 140°C, 69.3 g of chloromethyldimethylmethoxysilane (0.5 mol) (Wacker-Chemie GmbH, Munich) were slowly added dropwise with vigorous stirring within 2.5 hours. Subsequently, the reaction mixture was heated to 170°C for another 30 min. After the excess triethyl phosphite had been removed under reduced pressure, 100.4 g of diethoxyphosphorous ester methyldimethylmethoxysilane (0.42 mol, GC 98.2%, yield: 83.6% of theory) were distilled off at a temperature of 118-122°C and a vacuum of 11 mbar.

At page 8, line 17, please amend the following paragraph as shown below:

Example 3 (noninventive):

A 250 ml three-neck flask ~~flask~~ with dropping funnel and reflux condenser was initially charged under a nitrogen atmosphere with 112.2 g (0.675 mol) of triethyl phosphite ($\text{P}(\text{OEt})_3$, Aldrich, GC 98%). After heating to 140°C, 76.8 g of chloromethyltrimethoxysilane (0.45 mol) (Wacker-Chemie GmbH, Munich) were slowly added dropwise with vigorous stirring within 2.5 hours. Subsequently, the reaction mixture was heated to 170°C for another 30 min. After

the excess triethyl phosphite had been removed under reduced pressure, 105.6 g of diethoxyphosphorous ester methyltrimethoxysilane (0.39 mol, GC 97.4%, yield: 86.2% of theory) were distilled off at a temperature of 135-138°C and a vacuum of 12 mbar.

At page 8, line 33, please amend the following paragraph as shown below:

Example 4 (noninventive):

A 250 ml three-neck flask ~~flask~~ with dropping funnel and reflux condenser was initially charged under a nitrogen atmosphere with 99.7 g (0.6 mol) of triethyl phosphite ($\text{P}(\text{OEt})_3$, Aldrich, GC 98%). After heating to 140°C, 85.1 g of chloromethyltriethoxysilane (0.4 mol) (Wacker-Chemie GmbH, Munich) were slowly added dropwise with vigorous stirring within 1.5 hours. Subsequently, the reaction mixture was heated to 170°C for another 1.5 hours. After the excess triethyl phosphite had been removed under reduced pressure, 95.8 g of diethoxyphosphorous ester methyltriethoxysilane (0.31 mol, GC 98%, yield: 77.4% of theory) were distilled off at a temperature of 146°C and a vacuum of 11-13 mbar.

At page 9, line 11, please amend the following paragraph as shown below:

Example 5 (hydrolysis of dialkoxysilane):

A 250 ml three-neck flask ~~flask~~ with dropping funnel and reflux condenser was initially charged under a nitrogen atmosphere with 58.6 g of diethoxyphosphorous ester methyldimethoxymethylsilane (0.23 mol, GC 98) from example 1. After heating to 60°C, 18 g of water (1.0 mol) were slowly added dropwise with vigorous stirring within 10 minutes. Subsequently, the reaction mixture was heated to 60°C for another 120 minutes. After the alcohol formed and the excess water had been removed under reduced pressure, 38 g of poly((diethoxyphosphorous ester methyl)methylsiloxane) having an average molecular weight of 1200 g/mol were obtained, and mainly cyclic compounds were present according to ^1H NMR.